

## Research Publications

1. (with V.D.Sharma), Interaction of shock waves with weak discontinuities, *Applicable Analysis*, 50 (1993) 145 - 166.
2. (with V.D.Sharma), Imploding cylindrical shock in a perfectly conducting and radiating gas, *Phys. Fluids B* 5 (1993) 4287.
3. (with V.D.Sharma), On one dimensional planar and non-planar shock waves in a relaxing gas, *Phys. Fluids* 6(1994) 2177 - 2190.
4. (with V.D.Sharma), High and low frequency small amplitude disturbances in a perfectly conducting and radiating gas, *Int. J. Engng. Sci.* 33 (1995)2001-2010.
5. (with V.D.Sharma), Similarity solutions for converging shocks in a relaxing gas, *Int. J. Engng. Sci.* 33(1995)535 - 553.
6. (with V.D.Sharma), Strong converging shock waves in a radiating gas, *ZAMM*, 75 (1995) 847 - 859.
7. (with V.D.Sharma), Propagation and Interaction of waves in a relaxing gas, *Phil. Trans. R. Soc. Lond. A* 352(1995) 169 - 195.
8. (with V.D.Sharma), Three dimensional shock wave propagation in an ideal gas, *Int. J. Non-linear Mechanics* 30(1995) 305-322.
9. (with D.F.Parker and C. Sophocleous), Photorefractive accelerating pulses, *J. Phys. A: Math. Gen.* 35 (2002) 1283- 1295.
10. (with D.F.Parker and Margarida Facao) Accelerating solitons for sliding frequency filter systems, *Physical Review E*, 65 (2002).
11. (with V.D.Sharma and A. Jeffrey) An approximate analytical method for describing the kinematics of a bore over a sloping beach, *Applicable Analysis*, 81 (2002) 867 - 892.
12. (with S.A.V.Manickam and V.D.Sharma) Far field behaviour of waves in a vibrationally relaxing gas, *Applied Numerical Mathematics*,45 (2003) 293- 307.

13. (with V.D.Sharma) Exact solutions of Euler equations of ideal gasdynamics via Lie group analysis, *ZAMP (Switz.)*,59 (2008)1029 - 1038.
14. (with Manoj Pandey and V.D. Sharma) Similarity analysis and exact solutions of Magnetogasdynamic equations, *Quart. J. Mech. Appl. Math. (UK)*,61 (2008)291-310.
15. (with B.Sri Padmavati and T.Amaranath) New approximate analytical solutions for creeping flow past axisymmetric rigid bodies, *Mech. Res. Comm.*, 37 (2010)256-260.
16. (with V.D.sharma) Interaction of a weak discontinuity with elementary waves of Riemann problem, *Journal of Mathematical Physics*, 53 (2012)013506.
17. (with B.Sri Padmavati and T.Amaranath) A New Approximate Analytical Solution for Arbitrary Stokes Flow Past Rigid Bodies, *ZAMP* 63 (2012) 1103 - 1117.
18. (with B.Sri Padmavati and Deberjoyti Chaoudhary) Stokes flow past an arbitrary shaped body with slip-stick boundary conditions, *Applied Mathematics and Computation* 219 (2013) 5367-5375.